

Office of Marine and Aviation Operations



FY16 Budget Request to Fund an Ocean Survey Vessel



NOAA's personnel, ships, and aircraft play a critical role in gathering environmental data vital to the nation's economic security, the safety of its citizens, and the understanding, protection, and management of its natural resources. NOAA's fleet of ships and aircraft is managed and operated by the Office of Marine and Aviation Operations (OMAO), an office comprising civilians, mariners, and officers of the NOAA Commissioned Officer Corps, one of the seven uniformed services of the United States. OMAO civilians and NOAA Corps officers operate, manage, and maintain NOAA's active fleet of 16 research and survey ships and nine specialized aircrafts. Together, OMAO and the NOAA Corps support nearly all of NOAA's missions.

In FY 2016, one of NOAA's priorities in the <u>budget request</u> is **Investing in Observational Infrastructure** and the OMAO has requested \$147.0M for the construction of an Ocean Survey Vessel (OSV) to sustain fleet capacity and expertise. Without an investment, the NOAA fleet will decline by 50 percent from 16 to eight active ships between FY 2016 and FY 2028. This OSV will be the first vessel of its class in NOAA that will be capable of integrated, interdisciplinary, general purpose oceanographic research in coastal and deep ocean areas. This construction will contribute to NOAA's priority of achieving organizational excellence; by restoring mission capacity and expertise while at the same time positioning the NOAA Fleet for long-term, sustainable support of NOAA Line Office priority mission requirements for at-sea data collection and in situ observations. In FY 2018, OMAO plans to request \$6.2M to outfit the vessel with scientific equipment and other needs.

The OSV will be a multi-use platform designed to conduct a range of surveys throughout the U.S. Exclusive Economic Zone (EEZ). The vessel has a more diverse range of capabilities and functions than other vessels in the NOAA fleet and will be equipped with the capability to meet a variety of NOAA's missions such as:

- collecting samples and observations to support ecosystem-based management activities in support of <u>NOAA's</u>
 <u>National Ocean Service</u> and <u>National Marine Fisheries Service</u>;
- conducting oceanographic and climate research in support of <u>NOAA's National Weather Service</u> and <u>Office of Oceanic and Atmospheric Research</u>;
- mapping the ocean floor to update nautical charts in support of NOAA's National Ocean Service;
- collecting samples and observations to support validation and calibration of ocean color sensor missions in support of NOAA's National Environmental Satellite, Data, and Information Service;
- surveying marine mammal populations in support of NOAA's National Marine Fisheries Service, and
- servicing weather and climate buoys in support of <u>NOAA's National Weather Service</u> and <u>Office of Oceanic and</u> Atmospheric Research.





NOAA's OSV development will leverage the Navy's Auxiliary General Oceanographic Research Vessel (AGOR) class requirements/system specifications with modifications unique to NOAA's needs. AGOR is a mono-hull research vessel designed to commercial standards capable of integrated, interdisciplinary, oceanographic research in areas ranging from shallow coastal and continental shelf areas to oceans worldwide. By utilizing the AGOR design, NOAA is taking advantage of feasibility and conceptual studies that the Navy has conducted; with projected savings being approximately \$10M, reduced design risk, and increased ability for cross-government research opportunities. The OSV will be capable of a minimum of 40 days of continuous operation at sea in a combination of transiting, low speed operations, and on-station tasking.



An artist's rendering of the Armstrong-class auxiliary general oceanographic research vessel (AGOR). AGOR ships are modern oceanographic research platforms capable of satisfying a wide range of research activities in oceanographic research. (<u>U.S. Navy photo/Released</u>)

Despite the steady advancement of sampling and remote sensing technologies, ships will continue to play a key role in the acquisition of at-sea data for the foreseeable future. NOAA ships support the agency's data collection needs, such as conducting living marine resource surveys, mapping the ocean floor to update nautical charts, and servicing weather and climate buoys, all crucial activities that support the U.S. economy. By recapitalizing the NOAA fleet a variety of benefits will be achieved for NOAA and the nation. Technological improvements in the next 5-10 years, combined with the more comprehensive sensor suites, will increase data gathering capabilities; allowing expanded simultaneous multi-mission operations on new vessels. Advances in green technology will be incorporated into the new ship construction, which will produce ships that are more energy efficient and have reduced environmental impacts when compared to the older vessels reaching the end of service life. With the investment in Fleet recapitalization, NOAA will continue to advance coastal and worldwide ocean survey and data collection that underpins the production and delivery of NOAA's products and services.